

VITAL LANDSCAPES

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Landscape as topic of Agenda 21 - an analysis of Austrian case studies

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**VITAL
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1 Introduction

Landscape development and change on the European scale is often associated with loss of diversity caused by urbanisation, increased accessibility and globalisation (Antrop 2005). This results in a loss of differences in architecture and land use, and, therefore, of region-specific features so that landscapes seem to become exchangeable (Hoppenstedt & Schmidt 2002). These developments raise the question how landscapes should be management and landscape-bound regional and local identities should persist in the light of globalisation (Ward Thomson & Sarlöv Herlin 2004). If one agrees to the preamble of the European Landscape Convention - ELC (Council of Europe 2000), that landscapes are a key factor for physical, intellectual and spiritual well-being of the people (Dejeant-Pons 2006), a loss of landscape diversity will also cause a substantial loss of quality of life.

In order to mitigate, reduce and compensate the loss of landscape diversity, the ELC calls for a stronger valuation of landscapes so that landscape issues are established and raised in the societal value base, so that awareness within civil society, organisations, the general public and administrations leads to consciousness about their role in shaping and changing landscapes by everyday decisions (Art. 6A ELC). Furthermore, the public shall be actively involved in identifying landscapes and the landscape values and characteristics which are of significant interest of the interested and concerned public (Art. 6C ELC) The ELC is bottom-up- and participation-oriented (Schwahn 2005, Weber & Stöglehner 2006) as can be already derived from the definition of landscapes as “an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors” (Art. 1 lit.a ELC). In this context of participation it is interesting that local governments are identified as part of the public (Prieur & Derousseau 2006).

On the one hand the valuation of landscapes is an issue of education, which shall achieve to cover issues of knowledge as well as emotional aspects in order to include landscape in complex societal value systems on a prominent place (Perdroli & Mansvelt 2006). On the other hand this can be achieved by actively, jointly and collaboratively working on landscape, so that “ownership” of this topic arises within the the public, administrations and organisations which consists of ownership of values and concpets of landscapes, ownership of techniques and processes for landscape development as well as ownership of outcomes of landscape development processes (for the concept of ownership please refer to Stoeglehner et al. 2009 which was originally developed for strategic environmental assessment). This ownership of landscape values is a necessary precondition in order to enforce and implement objectives and measures of landscape protection, planning and management: Only an appropriate place of landscapes in the societal value systems can create the readiness of society to devote the appropriate resources as well as to shape and apply effective instruments for the governing the development of cultural and natural landscapes (Stoeglehner & Schmid 2007).

According to Stoeglehner (2006) and Stoeglehner and Schmid (2007) these bottom-up features of landscape development can be implemented within the Local Agenda 21 (LA21) scheme in combination with spatial planning, which is also seen as an important issue for the ELC implementation (Naranjo 2006, Stoeglehner 2006, Stoeglehner & Schmid 2007). This survey carried out under the Vital Landapes framework focuses on the bottom-up and participatory issues of landscape development which, according to the above quoted studies, might be appropriately accommodated in LA21. The research question for this contribution is, if and how landscape issues

are considered in LA21 visions and action plans. Therefore, a selection of 21 LA21 strategies (vision statements and action plans) on the local and regional level was surveyed. The report is structured in the following parts: In Chapter 2 the Agenda 21 frameworks in Austria are introduced, Chapter 3 briefly characterized the materials and methods, Chapter 4 presents the results of the survey which are then discussed in Chapter 5. Chapter 6 contains conclusions. The report is supplemented by an extensive Annex which includes brief descriptions of the case study municipalities and regions as well as evaluation questionnaires for the case studies.

2 Agenda 21 in Austria

Local Agenda 21 is the model approach towards the implementation of sustainable development in Austria at a communal and regional level cross-linking regional, national and European sustainability strategies (BMLFUW 2010). In Austria, the first LA21 processes were started in the year 1998. After five years 140 local and 14 regional processes were implemented. Until 2010 a threefold increase of LA21 processes (about 430 communal and 35 regional Agenda 21 processes) was achieved through the activities of the regional LA21 coordinators on provincial level, the joint declaration on LA21 in Austria and the related implementation steps co-ordinated by the expert group “Decentralised Sustainability Strategies – Local Agenda 21” and finally the Austrian Rural Development Programme. By means of this programme about 600 LA21 processes on municipal (25 % of the Austrian municipalities) and 50 on regional level shall be implemented until 2013 in all provinces. (Schmalnauer et. al 2010)

Aims

Objectives of LA21 are described in the “Joint Declaration on Local Agenda 21 in Austria” that was resolved in October 2003 by the conference of the Environmental Spokespersons of the Federal provinces (BMLFUW 2003):

LA21 is a tool to identify and implement “sustainable development” in day-to-day thought, decisions and actions and aims at renewing, strengthening and ensuring historically grown structures in rural areas and in urban centres as a pro-active response to globalisation. LA21 provides help towards self-help by making potentials visible and activating local know-how and sets important impulses in terms of direct democracy via broad involvement of the public. LA21 processes strengthen social cohesion and establish a new culture of relationship between the political-administrative system and the citizenship in terms of a new collective responsibility. Furthermore, LA21 promotes and implements the principle of equal rights between men and women. Improving the environmental situation and strengthening regional economic cycles are counted among the objectives of LA21. In addition, LA21 targets at a fair distribution of resources and capital among people currently alive and also among generations. Finally, the establishment of a modern future planning in order to face current and future challenges in a better way is one of the objectives of LA21.

Process

To elaborate a conventional vision statement for a municipality is a process of a couple of months meanwhile a LA21 process ranges beyond this time scale. Generally, to achieve broad effects such a process requires about 2 or 3 years and comprises four phases that are illustrated using the Upper

Austrian LA21 process model as an example. None of the phases can be skipped without impacts on the results. Public relations, a broad involvement of the public and external process attendance are important factors for the success of LA21 processes (OöAUN 2010):

- 1) *Sensitising and board decision*: At first, policy makers gather information about LA21, the process schedule, costs and subsidies. Subsequently, the municipality decides to conduct a LA21 and contracts an external process coach.
- 2) *Starting and establishing*: In the second phase a core team is formed, that is responsible for the process coordination together with the external process attendant. Awareness for sustainable development is created step by step, starting with the core team, continued with politics, administration and finally the citizens to arouse public interest and acquire active process participants.
- 3) *Developing a vision statement*: Based on a strengths-weaknesses-analysis workshops are held with interested citizens on the future development of the municipality, in which visions and goals are elaborated. The results are summed up in a LA21-vision statement that has to be passed by municipal council. A public presentation of the results is the starting point for the implementation phase.
- 4) *Implementing projects and achieving continuity*: During a project workshop, citizens, politicians and administrative staff elaborate project ideas and define pilot projects that are summed up in an action plan. Accordingly, projects need to be implemented and additionally, structures have to be created that guarantee a long term continuation of the agenda process. Successful processes do not end with the vision statement and the implementation of some projects but aim at continuing improvement in terms of goal definition, measure planning, implementation and evaluation. At the end of the implementation phase a progress control e.g. by indicators that measure the achievement of set goals is carried out and further project ideas are collected to improve the quality of life.

Participation

Public participation is an essential basis for broadly accepted, long-term oriented and successful LA21 processes that address people with their needs, visions and abilities as well as local and regional stakeholders e.g. associations, organisations and business. The point is to arrange the role patterns of political representatives and citizenship in a manner to avoid conflicts and to offer at the same time added value for all participants. (ExpertInnengruppe LA21 2006)

Participation within LA21 processes has informal character and is based upon voluntariness in contrary to legally obligatory public participation (e.g. SEA). The municipal council decides to conduct a LA21 process and accordingly enters into a commitment to take public participation seriously and to guarantee the involvement of the public over a specific period of time. The aim is to achieve a win-win-situation with advantages in the long term for all participants and contributions to sustainable development.

The expert group “Decentralised Sustainability Strategies – Local Agenda 21” differentiates five quality levels of participation in LA21 processes, whereof the minimum requirements for LA21 processes comprise the first three levels (see figure 1):

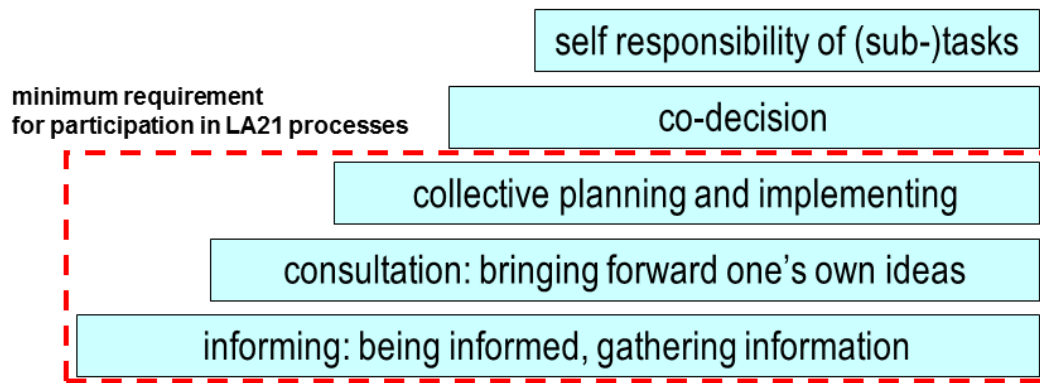


Figure 1: Five levels of participation (source: ExpertInnengruppe LA21 2006)

- 1) *Informing*: Politicians and administrative staff actively and in time inform the public about communal planning and intentions (e.g. municipal newspaper, press releases, access to plans and documents, information mailings and events). Information is an essential precondition for participation, but cannot compensate for the following levels of active public participation.
- 2) *Consultation*: People are invited to contribute in the phase of brainstorming and to bring forward their own ideas (e.g. advisory boards, hearings, comments, discussion forum). Substantial planning, decision making and implementation are carried out without public participation.
- 3) *Collective planning and implementing*: People are invited to play a part in brainstorming and planning and to contribute in clearly defined and transparent implementation steps (e.g. contribution in project groups, project management). Implementation proposals are submitted for decision to the municipal council. Participation is continued in the implementation phase.
- 4) *Co-decision*: Under predefined conditions people are involved also in decision-making (e.g. use of budgets for LA21).
- 5) *Self responsibility for (sub-)tasks*: Politicians put the responsibility for (sub-)tasks on the citizens. People bring forward new project ideas and realize them in coordination with political representatives. Subsequently, people assume organizational and financial responsibility (autonomy, e.g. youth clubs, collective solar energy plants, projects that lead to the foundation of associations etc.).

Contents

Agenda 21 forms the background for the orientation towards sustainability. LA21 processes on communal level tend to the concrete situation of a municipality – specific strengths, challenges and future demands. Based on Agenda 21 and other programmes relevant for sustainability on international, European and Austrian level a set of criteria for the content of LA21 processes was defined covering the essential aspects of sustainable development tailored to municipal/regional and civil needs. An excerpt of this progress control check is shown in table 1.

Content-related quality requirements (excerpt)		criteria addressed		Formulation in programmes	connection to other programmes										
					Agenda 21	Göteborg 2001	Millenium Development Goals	EU-SDS 2007	6th Environment Action Programme	Aalborg Charta	Aalborg Commitments	Austrian Rural Dev. Programme 07-13	Austrian Sustainable Dev. Strategy	programmes on provincial level	
Protection of natural resource	at least 50%	yes	no												
	Economical use of soil resources			Sustainable use of soil resources	X			X	X	X	X	X	X	X	
	Preservation of biodiversity - cultural landscapes, ecosystems and species			Preservation of biodiversity	X			X	X	X	X	X	X	X	
	Near-natural development of forests			Protection of forests	X						X	X			
	Safeguarding of water ressources and water balance/water protection			Sustainable use and protection of water ressources	X		X	X	X	X	X	X	X	X	
	Preservation and improvement of air quality			Preservation and improvement of air quality	X			X	X	X	X			X	
	Promoting near-natural and bio-production in agriculture			Promoting near-natural production in agriculture	X			X					X	X	
further criteria ...			further criteria ...												

Table 1: Excerpt of the content-related quality requirements for LA21 processes in Austria (source: ExpertInnengruppe LA21 2010)

Communal development strategies correspond to the content-related quality requirements on LA21 processes, if as many as possible of the thematic areas are addressed in the elaboration of visions, goals and measures.

According to the Austrian consensus on content-related quality requirements LA21 processes have to deal with the subject areas 1) environment and natural resources (19 criteria), 2) economic issues (5 criteria) and 3) social issues and quality of life (10 criteria). Vision statements have to address all three subject areas. Additionally, the LA21 process and the vision statement have to deal with at least 50 % of the criteria.

3 Materials & methods

Action 3.1.4 contains an analysis of 21 Austrian LA21 processes in order to see if and how environmental, social and economic issues of sustainable landscape development are addressed in Agenda 21 visions and strategies. The criteria used in this survey were developed within the international Vital Landscapes consortium applying the Group Invention Method (Stoeglehner et al. 2006). During an international expert workshop of all project partners of the Vital Landscapes Consortium a set of criteria for sustainable landscape development was elaborated that reflects a holistic view and, therefore, comprises the following thematic areas addressing contents and procedures of the case studies under survey (Neugebauer et al. 2011): (a) environment and nature (7 criteria), (b) social issues and culture (6 criteria), (c) economic issues (5 criteria), (d) participation (5 criteria) and (e) spatial criteria (4 criteria). The criteria were transformed into a questionnaire with evaluative questions to be answered with yes/no, where the reasons for the yes/no classification had to be provided for deeper insights how the criteria were implemented in the respective case studies. The questionnaires were filled in by the authors in desktop research on the basis of the LA21 vision statements and action plans. The case study description and questionnaires are included in the Annex to this report.

For the survey good practice case studies from different provinces were selected, where not only a vision statement and an action plan were elaborated, but that already showed some project implementation. Furthermore, the case study selection should guarantee a variety of attitudes and methods used by process attendants, different Provincial frameworks, various spatial structures (e.g. rural areas, suburban locations, small towns) and coverage of several thematic areas (e.g. agriculture, tourism, nature protection). The case study selection was based on interviews with persons in charge of the respective LA21 schemes in the respective Provincial Governments of the areas under survey.

4 Results

All the assessed LA21 strategies touch upon landscape issues even though a key word analysis shows that only two thirds of the case studies use the terms “landscapes” or “cultural landscapes” in formulations of development objectives. In addition, “natural landscapes” are addressed in a few case studies, especially where concerned territories are part of protected areas (national park, nature protection area, nature park). However, LA21 strategies often deal with landscape issues under the expressions “nature” or “environment” (about two thirds of the case studies).

LA21 strategies are subdivided into several subject areas, whereof only two case studies directly address “landscape issues” by the following formulations: “Ecology, Environment, Energy, Landscape management”, “Spatial planning, Natural scenery”, “Environment and Cultural landscape” respectively “Open space and Landscape”.

Tab. 2 reveals the results of the questionnaires filled in for each LA21 strategy. For the detailed answers concerning the evaluation criteria please refer to the case study collection in Annex I.

Environment & nature	A1 natural capital/heritage	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
	A2 ecological carrying capacity	Y	Y	Y	Y	Y	N	N	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	
	A3 landscape preservation	Y	Y	N	Y	Y	N	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	A4 landscape development	Y	Y	N	Y	Y	N	Y	Y	N	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	A5 regional resource cycles	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	
	A6 renewable energy sources	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	A7 climate change adaptation and/or mitigation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	
Social issues & culture	B1 quality of life	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	B2 social capital	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	B3 cultural capital / heritage	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	B4 demographic change	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	
	B5 consciousness / awareness of landscape	Y	N	N	Y	Y	N	N	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	B6 local / regional identity	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	Y	Y	Y	Y	
Economic issues	C1 economic capital	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	C2 multifunctional agriculture	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	
	C3 regional resources	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	C4 regional labour market	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
	C5 regional economic cycles / regional income generation	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	

Table 2: Case study comparison. Source: own processing.¹

¹ Explanations: NÖ = Lower Austria, OÖ = Upper Austria, Szbg = Salzburg, Stmk = Styria, Vbg = Vorarlberg.

The overall picture of the case study comparison reveals interesting results in the thematic areas, as will be explained in the next subsections.

4.1 Environment and nature

From the seven criteria attached to the thematic area environment and nature more than half of the case studies addressed all aspects. All strategies deal with natural capital/heritage. Regional resource cycles, renewable energy sources and climate change adaptation and/or mitigation are subject to consideration in almost all the case studies, but a few case studies do not deal with ecological carrying capacity, landscape preservation and landscape development.

A1) Natural capital/heritage

Due to the importance for regional identity all the case studies deal with natural capital/heritage. On the one hand, the case studies affect natural capital/heritage indirectly through awareness raising (for nature, intact landscapes, qualitative living environments, diversity of fauna, flora and habitats etc.) (B5). On the other hand, preservation (A3) and management (A4) of landscape territories and/or landscape elements are subjects to LA21 strategies, especially in municipalities/regions whose territories comprise areas protected under nature protection legislation (e.g. national park, nature protection area, nature park).

A2) Ecological carrying capacity

Ecological carrying capacity is not an issue addressed in all assessed strategies. For instance, some strategies try to improve the ecological carrying capacity by enhancing the resilience of habitats or by revitalization of habitats (A1). Additionally, reducing environmental pressures through reduction of material and energy flows is a common approach within LA21 frameworks (e.g. energy saving, closure of regional material and economic cycles, avoidance of transport necessities, stewardship of available resources (area, soil), organic farming etc.) (A5, C5).

A3) Landscape preservation

Landscape preservation is a subject of LA21 strategies in relation to protected areas (e.g. national park, nature protection area, nature park) and is articulated in the formulation of protection goals for natural and cultural landscapes as well as ecologically invaluable areas (A1). Furthermore, the issue is covered by designing economic activities and consumer products that allow for the maintenance of landscapes (e.g. energy forest) or landscape elements like fruit trees, herbal meadows, pastures etc. by specialized forest and agricultural production, organic farming etc. (C5).

A4) Landscape development

Several assessed case studies aim at the capitalisation of landscape through development of regional resources (A5), production and consumption cycles (C5) or landscape bound touristic offers and thus, contribute to conservation and preservation of landscapes (A1 and A3), intend to influence demographic change (B4), fight outmigration and rural brain drain by creating regional jobs and revenue (C4, C5).

A5) Regional resource cycles

Almost all case studies deal with regional resource cycles in a broad variety from promotion of regional agricultural production (e.g. in combination with protected areas) and regional energy resources (energy farmers) to processing to more complex consumer products (high-quality regional products, wine production and marketing, using wood as regional construction material), as well as awareness raising (C3, C2, B5).

A6) Renewable energy

Renewable energy sources are direct subject of almost all the assessed LA21 strategies, on the one hand through goal definitions for their direct application, on the other hand for awareness raising and education activities. Most of the assessed municipalities are members of the climate alliance and therefore strive for a reduction of greenhouse gas emissions (A7) through e.g. reduction of energy consumption and application of regional renewable energy sources (biomass, solar, wind) or they define energy self-sufficiency / sovereignty as development goals.

A7) Climate change adaptation / mitigation

The use of renewable energy as well as climate change mitigation cannot be separated. Additionally, initiatives, that are targeted on renewable energy application (A6) also strive for energy saving, a further important aspect of climate change mitigation. Against the background of the membership in the climate alliance, most of the assessed strategies include goal definitions that aim at reducing greenhouse gas emissions (e.g. reduction of energy consumption, application of regional renewable energy sources, avoidance of mobility necessities, awareness raising etc.).

4.2 Social issues and culture

All the assessed LA21 strategies touch upon issues of quality of life, social capital and cultural capital/heritage. Demographic change and local and regional identity are not addressed in two strategies, furthermore, consciousness and awareness of landscape are no subject of consideration in quite a few case studies.

B1) Quality of life

Quality of life is a major issue in all assessed LA21 strategies as Agenda 21 aims at ensuring and improving the quality of life for current and future generations. Therefore, objectives and measures comprising several thematic areas are defined to ensure and/or improve the quality of life. Conservation of (cultural) landscapes (A3), maintaining of landscape elements for recreational use or stewardship of nature are seen as strategies for improving the quality of life. Good living conditions for all generations (B4), gender issues, generation of social infrastructure, protection of human health and health care (B2) as well as co-operation and networking in economic issues (D1), the vitalisation of village cores or provision of daily goods and services (C5) are identified with quality of life.

B2) Social capital

Issues of social capital are subject to all case studies according to the Austrian content-related quality requirements for LA21 processes (see chapter 2). For instance, LA21 strategies address social capital

by defining objectives and measures striving for social cohesion, social engagement, community activities, voluntary work/services or neighbourly help. Network formation and establishing communication platforms (D1) shall bring together representatives and stakeholders of different groups of society. Some activities are also related to certain target groups like for instance the youth, handicapped people, family oriented activities or overarching societal topics like gender mainstreaming (B1).

B3) Cultural capital / heritage

Cultural capital or heritage is also one of the major issues in all of the assessed LA21 strategies in compliance with the quality requirements for Austrian LA21 processes (see chapter 2). Landscape is often seen as an important cultural capital or heritage that can be kept by societal and economic activities related to recreation as well as rural tourism (C5) and is also seen as an important factor of regional identity (B6). Activities are also including the revitalisation or creation of venues for cultural activities, promotion of cultural diversity, active participation in the cultural life, appreciation of traditional handicrafts and historical customs.

B4) Demographic change

Demographic change as an important ongoing matter is subject to almost all case studies. On the one hand, strategies deal with the aging society by defining goals and measures to extend community activities (e.g. platforms for services and cooperative exchange, neighbourly help, time banking) and other initiatives to create opportunities of independent life for aged people so that they can stay in their homes and get food supply and daily care if needed (B1, B2). On the other hand, LA21 is concerned with outmigration and loss of young people in rural areas as impacts of the demographic change and strives for childcare, job offers for men and women in rural areas or in acceptable commuter distance as well as teleworking possibilities (C4).

B5) Consciousness / awareness of landscapes

The marketing of agricultural products and rural tourism offers, rediscovery of regional cuisine (A5), making landscape diversity visible is identified with raising awareness for issues of landscape development and management. Also mapping of landscape elements (A1) is used as a tool to strengthen consciousness/awareness of landscapes. This issue is often mentioned together with local/regional identity as described below (B6).

B6) Local / regional identity

Creating local and regional identity is subject to almost all assessed LA21 strategies. For instance, local products, regional brands (A5) and typical landscape elements (A1) were identified, rediscovered or developed to build upon visible features or products that help to strengthen identity. Also cultural activities (B3) are promoted to strengthen identity, social capital and awareness of landscape, for instance the collection of local stories and legends. Furthermore, creating local/regional identity is seen as a strategy to influence demographic change (B4), namely the outmigration of young people from rural areas.

4.3 Economic issues

From the five criteria attached to economic matters only issues of multifunctional agriculture are not addressed in all assessed LA21 strategies, whereas economic capital, regional resources, regional labour markets and regional economic cycles/regional income generation are subject to consideration in all case studies.

C1) Economic capital

In order to fulfil the content-related quality requirements a holistic Agenda 21 strategy has to deal with economic issues. Therefore, LA21 strategies aim at increasing the economic capital in terms of promoting regional products and services or strengthening regional added value (C5) and the diversity of branches and services. On the other hand, the assessed strategies strive for better networking of existing economic activities (D1) connected to regional resource use (e.g. renewable energy supply or other regional production as furniture from regional wood) (A6, C3).

C2) Multifunctional agriculture

Aiming at the protection of natural resources (A1) the promotion of near-natural and bio-production in agriculture are counted among the ecological objectives of LA21 strategies in order to counter intensification processes that take away landscape elements and biodiversity. Multifunctional agriculture as a concept is seen as a possibility to combine agricultural production with other outputs like landscape preservation (A3) or creating identity (B6), promotion of regional traditions (B3) and other related benefits.

C3) Regional resources

The use of regional resources is a main factor of economic development following ideas of endogenous regional development. Resources to be used are normally related to activities concerning agriculture (C2), forestry, renewable energy supply (A6) and tourism. One important feature is the creation of regional brands (B6) like direct marketing labels of farmers' products, theme trails and many other related activities. In some cases also regional knowledge (B2) is seen as an important resource for economic activities, e.g. historical knowledge, adaptive use of resources, regional cultivation and processing techniques, e.g. for fruits.

C4) Regional labour markets

Strengthening regional labour markets by keeping existing jobs and creating new additional job opportunities is counted among the economic development goals of LA21 processes. Concrete results are not always measurable because on the one hand secondary effects are hard to identify and calculate, on the other hand because effects are sometimes low. The improvement of basic conditions or infrastructure for the foundation of enterprises as well as the settlement of companies (C1) (to some extent in co-operations beyond municipal borders), the establishment of new business locations (providing daily goods and services) in village centres (C3), or job creation in the field of renewable energies (A6) can achieve positive regional labour market effects.

C5) Regional economic cycles and regional income generation

Strengthening regional economic cycles via interlinking business with municipalities (D1), creating multisectoral partnerships (D1) and new job opportunities (C4) or provision of daily goods and services (C3) is counted among the objectives of LA21. Therefore, LA21 strategies aim at (re-)directing the spending power of the regional population into the region in order to enhance economic capacity (C1) and the regional labour markets (C4). This means the closure of regional economic cycles between production and consumption in order to strengthen regional income generation.

4.4 Participation

Sustainable development requires active contribution of all groups of society and consequently, sustainability strategies and programs consider participation as an essential element of sustainable development. In the Austrian understanding setting important impulses in terms of direct democracy by involving wide parts of the population (increased citizen commitment, encouragement of individual responsibility for one's own living space, raising the level of identification with one's environment) is counted among the objectives of LA21 (see BMLFUW 2003). Therefore, public participation constitutes an essential basis for LA21 processes and the assessed Austrian LA21 future strategies have a strong focus on participation and accordingly, fulfil most of the criteria related to this thematic area.

D1) Creation and supporting of networks

Network creation is an important feature of LA21 processes. According to the process relevant quality requirements Austrian LA21 processes have to include also network-relevant implementation steps: On the one hand, LA21 is implemented under broad and active public participation. Therefore, the process management is carried out under involvement of the public. A core team of about 10 to 15 persons is formed, that is responsible for the process management in co-operation with external process attendants. On the other hand, a LA21 process includes also exchange and networking in the sense of new activities and co-operations on regional level (beyond municipal borders), observation of global responsibilities and the creation of synergies with respect to other instruments of municipal and regional development.

D2) Bottom-up oriented participation methods/approaches

To elaborate a strategy with participatory approaches is quite common although the level of participation is diverse. The least intense way of participation is the distribution of questionnaires or the collection of interviews. The most intense participatory approaches involve local people in the visioning process and the drafting of the strategy and catalogue of measures. The Austrian quality requirements for LA21 processes provide for broad and active public participation in the visioning process and the implementation. The public is not only informed about the LA21 process, but also invited to actively contribute in clearly defined and transparent implementation steps (e.g. contribution in project groups, project management).

D3) Bottom-up decision making

Concerning public participation in Austrian LA21 processes are differentiated five quality levels, whereof the minimum requirements comprise the first three levels: 1) informing, 2) consultation and 3) collective planning and implementing (see figure 1). In addition, on the level of projects "co-

decision” can give the right direction and in some cases the public participation reaches quality level four.

D4) Bottom-up implementation

The Austrian quality requirements for LA21 processes provide for broad and active public participation not only in the visioning process, but also in the implementation. The public is not only informed about the LA21 process, but also invited to actively contribute in clearly defined and transparent implementation steps (e.g. contribution to project groups, project management). LA21 is dependent on the implementation of the strategy by the local and regional population (e.g. farmers or other stakeholder groups are implementing measures). Successful processes do not end with the vision statement and the implementation of some projects but aim at continuing improvement in terms of goal definition, action planning, implementation and evaluation.

D5) Bottom-up monitoring, evaluation and adaptation strategies

The Austrian Agenda 21 approach calls for a local/regional bottom-up management structure that monitors and evaluates the process implementation. The monitoring and evaluation can lead to the adaptation of the implementation strategies or the revision of the vision statement if necessary.

5 Discussion

The analysis of the case study reveals that almost all issues we perceive as important criteria for a “vital landscape” are covered in one or the other way by the case studies. In line with the quality criteria of LA21 it seems that the visions and action plans lay out potential development paths in the direction of sustainability. How successful the municipalities and regions could proceed on their way to sustainable development, was not subject of this survey. Yet, if actions are implemented the prospects are good.

Analysing how cause-effect-relations between the different content related criteria were addressed in the case studies, we see that a systems approach is underlying the LA21 processes that consciously deals with direct and indirect effects as can be seen in Tab. 3. Tab. 3 shows all relations between the criteria which are explicitly considered in the LA21 visioning processes by the local communities (and not all potentially possible relations). Tab. 3 does not reflect objectives and measures taken within the specific criteria, which means what happens within the grey cells of the matrix.

		A1	A2	A3	A4	A5	A6	A7	B1	B2	B3	B4	B5	B6	C1	C2	C3	C4	C5
A1 natural capital/heritage	A1																		
A2 ecological carrying capacity	A2																		
A3 landscape preservation	A3																		
A4 landscape development	A4																		
A5 regional resource cycles	A5																		
A6 renewable energy sources	A6																		
A7 climate change adaptation and/or mitigation	A7																		
B1 quality of life	B1																		
B2 social capital	B2																		
B3 cultural capital/heritage	B3																		
B4 demographic change	B4																		
B5 consciousness / awareness of landscape	B5																		
B6 local / regional identity	B6																		
C1 economic capital	C1																		
C2 multifunctional agriculture	C2																		
C3 regional resources	C3																		
C4 regional labour market	C4																		
C5 regional economic cycles / regional income generation	C5																		

Table 3 System analysis with an impact matrix showing relations between the “vital landscapes” criteria²

Objectives and measures within the following criteria are normally argued and reasoned with impacts on other criteria, which also reveals societal values and attitudes within the LA21 processes:

- Environmental issues are not only influencing themselves, but are also explicitly addressed to promote social issues like local and regional identity and economic issues regional economic cycles and regional income generation. Especially the use of renewable resources in regional cycles as well as landscape development are seen as future-oriented strategies that are related to social and economic issues.
- Social issues are mainly seen as passive, which means that they are influenced by other issues, and not as drivers for environmental or economic development. Demographic change is seen as threat on the one hand (outmigration of young and/or qualified people), on the other hand as framework condition for the organisation of social infrastructures and the quality of life.
- Economic issues are perceived as being positively influenced by environmental criteria (see above) and influence social issues more actively, especially as a condition to guarantee social criteria like quality of life, keep cultural heritage and capital, and to strengthen local and regional identity.

It is interesting to see that in sustainability oriented local development processes environmental issues are perceived as a fundament, and not as an obstacle for economic and social development. Therefore, a general awareness in LA21 municipalities for landscape protection, management and development can be detected, which is represented in special targets and measures addressing the single vital landscapes criteria as well as interlinkages between them.

If we look deeper into landscape issues we have to state that although many issues of a vital landscape are covered, only few LA21s explicitly addressed issues of landscape quality. Landscape quality objectives were hardly defined, especially where protected areas or areas significant for tourism were present in the municipality. Therefore, we have to state that although landscape issues are directly and indirectly addressed, that is only partially done consciously. Even though actions are proposed that in general lead to sustainable development and a vital landscape, it is not surveyed in detail if this is the case in the specific local situation. Therefore, a kind of “landscape assessment”

² ■ X affects Y, ○ X is affected by Y, □ X affects Y and is affected by Y

would be necessary where the effects of proposed actions on the landscape and its functions would be surveyed in detail before actions are carried out. This would make it quite likely necessary to involve expert knowledge, which is normally not present in such processes driven by volunteer work.

These facts call for a more detailed guidance in order to develop landscape quality objectives and respective actions for their implementation. They also suggest, that embedding these issues into a participatory process needs involvement of external experts as a factual knowledge base is required to holistically work on landscapes that seems to often not present in the volunteers participating in an LA21 process. For instance, the Steinbach process, where fruit processing was proposed and is carried out for years, started with an “apple exhibition” that was organised in cooperation of the village people with an external expert.

Objectives and actions that contribute to landscape protection and management are often addressed to farmers and other landowners and want to create awareness that the consumption of local products also contributes to managing the local landscapes. In that way farmers shall be encouraged to and supported by managing landscapes. New forms of landscape management, e.g. contributions of the civil society to manage fruit trees, hedges etc. based on voluntary work with the landowners just tolerating the landscape management activities are normally not put forward. Also events like tree cutting days or planting days for hedgerows, collective pruning of fruit trees etc. are not yet on the agenda. Such grass root level activities that might have considerable effects on landscape management could be organised within the LA21 framework, but obviously need some incentives from outside.

6 Conclusions

From our surveys it can be concluded that LA21 is only partly suitable to carry out the bottom-up aspects of the ELC-implementation. In this way we must differentiate the statements cited in the introduction more precisely, as the LA21 frameworks and guidance would have to be adjusted to accommodate a discussion and adoption of landscape quality objectives and to carry out a “landscape assessment” to find out how proposed actions influence landscape development, protection and management. Such a discussion is not obligatory at the moment. To capture the dimensions, dynamics and complexity of landscapes systematically, expert knowledge is necessary that would have to be additionally introduced to the LA21 processes.

Therefore, we argue that LA21-like methods for public participation enhancing the self-organisation capacity are feasible to work on landscape quality objectives and action plans for their implementation but that a focus of LA21 on landscapes would change the scheme considerably by introducing more expert-driven methods or imposing topics on the local community that may have little relevance for the local inhabitants. Therefore, a separate landscape planning scheme with contents focused on landscape development but with LA21-like participatory processes and also some binding results, eventually combined with funding schemes, might be a more suitable arena to discuss landscape in detail. Against this second option could be argued that the holistic view on landscape development and on influences of all aspects of life and economy on landscapes might get lost, as such a landscape planning scheme could easily be seen as a sectorial action and also might attract not all societal groups relevant for landscape development.

Finally it can be concluded that a mixture of the “classic” LA21-approach and the landscape planning approach might lead to success when “landscape working groups” can be established within the LA21 process that are guided by an expert in landscape planning and jointly elaborate on landscape issues, landscape quality objectives and action plans for their implementation as well as carry out landscape assessments of objectives and actions proposed by other workgroups. Such an approach might make best use of the participatory, holistic and sustainability-oriented features of LA21 and the possibility to include landscape planning expertise in the local community development in line with the ELC.

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